

On page 20, please replace the paragraph at line 7 with the following rewritten paragraph:

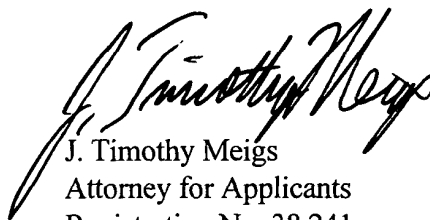
a4 -- Regions in Accessionary Seed lot confirmed by DNA Sequencing (SEQ ID NO:3 and SEQ ID NO:4) --

REMARKS

In response to the Notice to File Missing Parts, Applicants have provided an initial paper copy of the sequence listing, an initial computer readable form (CRF) copy of the sequence listing, as well as an amendment directing its entry into the specification. Pursuant to 37 CFR §§ 1.821-1.825, the undersigned states that the Paper Copy and the Computer Readable Form are identical and contain no new matter.

The Examiner is respectfully requested to enter the above amendments before commencement of substantive examination. If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call Applicants' undersigned attorney.

Respectfully submitted,



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MARKED-UP VERSION SHOWING CHANGES MADE

The enclosed paper Sequence Listing, pages 1-4, has been added to the specification.

The following new paragraphs have been inserted into the specification on page 3, between the description of Figure 8 and the heading "SUMMARY OF THE INVENTION":

-- BRIEF DESCRIPTION OF THE SEQUENCES IN THE SEQUENCE LISTING

SEQ ID NO:1 is the SV40 sequence shown in Figure 1A.

SEQ ID NO:2 is the human Ad5 E1A transcription control region shown in Figure 2.

SEQ ID NO:3 is the left end of the Ar6pAE2fF sequence shown in Figure 3A.

SEQ ID NO:4 is the right end of the Ar6pAE2fF sequence shown in Figure 3B.

SEQ ID NO:5 is the left end of the Ar6F sequence shown in Figure 4.

SEQ ID NO:6 is the left end of the Ar6pAF sequence shown in Figure 5.

SEQ ID NO:7 is the 11 bp repeat element in the Ad5 enhancer.

SEQ ID NO:8 is the adenine residue sequence shown in Figure 1C. --

On page 9, the third paragraph has been replaced with the following rewritten paragraph:

-- An analysis of the characteristics of the nucleotide elements around the adenoviral (Ad5) E1a region indicates that an element containing enhancer like properties lies between -141 and -305 relative to the E1a cap site at +1 (Figure 2). This enhancer element is located very close to a sequence required in cis for packaging of viral DNA. Deletion of the enhancer element reduces both the rate of transcription and steady-state levels of E1a mRNAs in virus-infected cells. The E1a enhancer contains an 11 bp repeat element, which is a critical component of the modulatory sequence (5'-AGGAAGTGACA-3') (SEQ ID NO:7). A 2-3-fold reduction of E1a expression is observed when one copy of the repeat sequence is removed, whereas expression drops 15 to 20 times when both copies are removed (Hearing and Shenk, Cell vol. 33, pp.695-303, July 1983). However, it was found that a deleted mutant can still direct the synthesis of E1a-specific mRNAs, even though it lacks the entire region from -393 to +10 relative to the E1a cap site

containing the enhancer and promoters elements. It is not clear which sequences are responsible for this transcription. Accordingly, in the context of adenoviral vectors, the interfering genetic element may be located within the 5'ITR, which is a region necessary for replication of the adenovirus. --

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